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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 1 of 5

Complete if Known	
Application Number	10/645,726
Filing Date	August 21, 2003
First Named Inventor	Joseph C. Mollendorf
Art Unit	~~1775~~ 1772
Examiner Name	Unknown
Attorney Docket Number	19226/2181 (R-5766)

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	U.S. Patent Document Number - Kind Code[2] (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
DL	1	US-3,660,849	05/09/1972	Jonnes et al.	
	2	US-3,856,721	12/24/74	Fritschel	
	3	US-4,077,922	03/07/1978	Farrissey, Jr. et al.	
	4	US-4,252,378	02/24/81	DeBolt et al.	
	5	US-4,276,341	06/30/1981	Tanaka	
	6	US-5,120,385	06/09/1992	Takahashi et al.	
	7	US-5,569,513	10/29/1996	Fidler et al.	
	8	US-5,888,642	03/30/99	Meteer et al.	
	9	US-6,284,809 B1	09/04/01	Plummer et al.	
	10	US-6,319,599	11/20/2001	Buckley	
	11	US-6,349,412 B1	02/26/02	Dean	
	12	US-6,389,865 B1	05/21/02	Easterbrook	

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Examiner Initials*	Cite No.[1]	Foreign Patent Document Country Code[3] Number[4] Kind Code[5] (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Application of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T[6]

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[2]
	13	Dow Corning, Product Information Sheet for Silicone Sealants: Dow Corning® 756 Silicone Building Sealant-HP, 3 pages	
	14	Herrmann et al., "Aerogels: The Leading Edge in Thermal Insulation," *H & V Engineer* 68(725):8-11 (1995)	
	15	Lu et al., "Thermal Transport in Organic and Opacified Silica Monolithic Aerogels," *Journal of Non-Crystalline Solids* 145:207-210 (1992)	
	16	Hümmer et al., "Heat Transfer in Opacified Aerogel Powders," *Journal of Non-Crystalline Solids* 145:211-216 (1992)	
	17	Zeng et al., "Pore Size Distribution and Apparent Gas Thermal Conductivity of Silica Aerogel," *Transactions of the ASME* 116:756-759 (1994)	
	18	Lu et al., "Thermal Conductivity of Monolithic Organic Aerogels," *Science* 255:971-972 (1992)	
	19	Zeng et al., "Mean Free Path and Apparent Thermal Conductivity of a Gas in a Porous Medium," *Transactions of the ASME* 117:758-761 (1995)	

Examiner Signature	D. Lang	Date Considered	8/6/05

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 2 of 5

Complete if Known	
Application Number	10/645,726
Filing Date	August 21, 2003
First Named Inventor	Joseph C. Mollendorf
Group Art Unit	~~1775~~ 1772
Examiner Name	Unknown
Attorney Docket Number	19226/2181 (R-5766)

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	20	Hashin, "Assessment of the Self Consistent Scheme Approximation: Conductivity of Particulate Composites," *J. Composite Materials* 2(3):284-300 (1968)	
	21	Benveniste, "Effective Thermal Conductivity of Composites with a Thermal Contact Resistance Between the Constituents: Nondilute Case," *J. Appl. Phys.* 61(8):2840-2843 (1987)	
	22	Ohsawa et al., "A Study of Composite Foams for Diving Suits Subjected to High Hydrostatic Pressure," *J. of Appl. Polymer Science* 23:1233-1245 (1979)	
	23	Chan et al., "Conductance of Packed Spheres in Vacuum," *Transactions of the ASME-Journal of Heat Transfer* 95:302-308 (1973)	
	24	Wawryk et al., "The Influence of Microsphere Diameter on the Coefficient of Thermal Conductivity of Microsphere Insulation," *Cryogenics* pp. 441-443 (August 1983)	
	25	Baudot et al., "Thermal Conductivity of a RTV Silicone Elastomer Between 1.2 and 300 K," *Cryogenics* 38(2):227-230 (1998)	
	26	Hatta et al., "Thermal Conductivity of Coated Filler Composites," *J. Appl. Phys.* 59(6):1851-1860 (1986)	
	27	Benveniste, "A Differential Effective Medium Theory With a Composite Sphere Embedding," *Transactions of the ASME-Journal of Applied Mechanics* 54:466-468 (1987)	
	~~28~~	~~Silicones, Inc., Product Information Sheet for P-10, 2 pp.~~	
	29	Cabot Corporation, Product Information Sheet for Nanogel™ Fine Particle Aerogel, 2 pp. (2002)	
	30	Cabot Corporation, Product Information Sheet for Nanogel™ Aerogel Beads, 2 pp. (2002)	
	31	Silicones, Inc., Material Safety Data Sheet for Product Name: P-10A, 2 pp. (1999)	
	32	Silicones, Inc., Material Safety Data Sheet for Product Name: P-10B, 2 pp. (1999)	
	33	Silicones, Inc., Material Safety Data Sheet for Product Name: GI-245 A, 2 pp. (1998)	
	34	Silicones, Inc., Material Safety Data Sheet for Product Name: GI-245 B, 2 pp. (1998)	
	~~35~~	~~Silicones, Inc., Product Information Sheet for GI-245 Special Effect Silicone, 2 pp.~~	

Examiner Signature	D. Thy	Date Considered	8/6/05

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Sheet 3 of 5

Complete if Known	
Application Number	10/645,726
Filing Date	August 21, 2003
First Named Inventor	Joseph C. Mollendorf
Group Art Unit	~~1775~~ 1772
Examiner Name	Unknown
Attorney Docket Number	19226/2181 (R-5766)

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	36	Silicones, Inc., Price Sheet for RTV-2 Silicone Rubber, 1 page (1997)	
	37	Silicones, Inc., Product Information Sheet for GI-300 Series Silicone Rubber, 2 pp.	
	38	Silicones, Inc., Product Information Sheet for GI-320 Silicone Rubber, 1 page	
	39	Silicones, Inc., Product Information Sheet for GI-650 Silicone Rubber, 2 pp.	
	40	Silicones, Inc., Product Information Sheet for GI-1120 Silicone Rubber, 2 pp.	
	41	Silicones, Inc., Product Information Sheet for GI-1110 Silicone Rubber, 2 pp.	
	42	Silicones, Inc., Product Information Sheet for GI-1040 Silicone Rubber, 2 pp.	
	43	Silicones, Inc., Product Information Sheet for GI-1100 Silicone Rubber, 2 pp.	
	44	Silicones, Inc., Product Information Sheet for GI-1032 Silicone Rubber, 2 pp.	
	45	Silicones, Inc., Product Information Sheet for GI-1000 Silicone Rubber, 2 pp.	
	46	Silicones, Inc., Product Information Sheet for GI-Ultra-Fast Catalyst, 1 page	
	47	Silicones, Inc., Product Information Sheet for GI-184B/GI-Thixotropic Activator, 2 pp. (1996)	
	48	Silicones, Inc., Product Information Sheet for P Series RTV Silicone Rubbers for Moldmaking Applications, 2 pp.	
	49	Silicones, Inc., Product Information Sheet for P-44 Silicone Rubber, 2 pp.	
	50	Silicones, Inc., Product Information Sheet for P Series RTV Silicone Rubbers for Electrical Applications, 2 pp.	
	51	Silicones, Inc., Product Information Sheet for Equipment Required for Two-Component RTV Silicone Rubber Mold-Making, 2 pp.	
	52	Silicones, Inc., Product Information Sheet for Helpful Information Relating to Various Silicones, Inc. Products, 1 page	
	53	Silicones, Inc., "How to Make a Silicone Mold," 2 pp.	
	54	Dow Corning Corporation, Product Information Sheet for Dow Corning® 832 Multi-Surface Adhesive Sealant, 2 pp. (1997)	

Examiner Signature	D. Tung	Date Considered	8/6/05

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 4 of 5

Complete if Known	
Application Number	10/645,726
Filing Date	August 21, 2003
First Named Inventor	Joseph C. Mollendorf
Group Art Unit	~~1795~~ 1797
Examiner Name	Unknown
Attorney Docket Number	19226/2181 (R-5766)

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
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	55	Akzo Nobel, Product Specification Sheet for Expancel® DE Dry Expanded Microspheres, Issue 01.11, 1 page	
	56	General Electric Company, Datasheet for RTV615, RTV655, and RTV656 High Strength Transparent Silicone Rubber Compounds, 5 pp.	
	57	General Electric Company, Datasheet for LIM®6010, Liquid Silicone Rubber, 3 pp.	
	58	General Electric Company, Product Information Sheet for SS4004P, SS4044P, SS4120, SS4155, and SS4179, Silicone Primers for Use with One and Two Component RTV Silicone Adhesive Sealants, pages 1, 2, and 4	
	59	General Electric Company, Datasheet for RTV400T, Translucent Silicone Moldmaking Rubber, pages 1 and 3	
	60	General Electric Compnay, Datasheet for SF96® 50, SF96® Silicone Fluids, 8 pp.	
	61	Silicones, Inc., RTV-2 Silicone Rubber Product Selection Guide, 4 pp.	
	62	Perlite Institute Inc., World Trade Organization, "Basic Facts About Perlite," 3 pp., available at http://www.perlite.org/blacts.htm	
	63	Dow Corning Corporation, Material Safety Data Sheet for Dow Corning® 3145 RTV Adhesive/Sealant – Gray, pages 1, 3, 5, and 7 (revision date Feb. 15, 2002)	
	64	3M Performance Enhancement Sheet for 3M™ Microspheres Engineered for a Wide Choice of Unique Enhancements, 8 pp. (1998)	
	65	3M Microspheres Comparison Chart for 3M™ Scotchlite™ Glass Bubbles General Purpose Series, 3 pp.	
	66	Aspen Aerogels, Inc., Material Safety Data Sheet for ASP-USB Silica Aerogel Beads, 4 pp. (2001)	
	67	Dow Corning Corporation, Material Safety Data Sheet for Dow Corning® Q3-6611 Adhesive, Gray, pages 1, 3, 5, and 7 (revision date Jan. 22, 2002)	
	68	Silbrico Corporation, Information Sheet for Sil-Cell Microcellular Filler, 3 pp.	
	69	3M, Product Information Sheet for 3M™ Z-Light Spheres™ Ceramic Microspheres Gray Grades, pages 1 and 3 (2000)	
	70	3M, Cast Polyester Applications Profile, 2 pp.	
	71	3M, Microspheres Thermal Conductivity Report, 3 pp.	
	72	3M, Cost Comparison Guide for 3M™ Scotchlite™ Glass Bubbles, 7 pp.	

Examiner Signature		Date Considered	8/6/05

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Substitute for form 1449B/PTO				*Complete if Known*	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT *(use as many sheets as necessary)*				Application Number	10/645,726
				Filing Date	August 21, 2003
				First Named Inventor	Joseph C. Mollendorf
				Group Art Unit	~~1775~~ 1772
				Examiner Name	Unknown
Sheet	5	of	5	Attorney Docket Number	19226/2181 (R-5766)

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✓	73	Grealish et al., "State-of-the-Art on Deep Water Thermal Insulation Systems," *Proceedings of OMAE'02, 21st International Conference on Offshore Mechanics and Artic Engineering*, Oslo, Norway, pp. 339-347 (June 23-28, 2002)	
✓	74	Wang et al., "Syntactic Foam Thermal Insulation for Ultradeep High Temperature Applications," *Proceedings of OMAE'02, 21st International Conference on Offshore Mechanics and Artic Engineering*, Oslo, Norway, pp. 155-166 (June 23-28, 2002)	
✓	75	Kyo, "Effective Thermal Conductivity of Composite Foam," *Heat Transfer-Japanese Research* 23(3):258-276 (1994)	
✓	76	Wawryk et al., "Heat Transfer in Microsphere Insulation," *Journal of Thermal Analysis* 34:249-257 (1988)	
✓	77	Lu et al., "Thermal Transport in Opacified Monolithic Silica Aerogels," *12 ETPC Proceedings* 23:431-436 (1991)	
✓	78	Hrubesh et al., "Thermal Properties of Organic and Inorganic Aerogels," *J. Mater. Res.* 9(3):731-738 (1994)	
✓	79	Rowe, "Final Report, N00298-69-Q-K786, Development of a Flexible Swimsuit Material for 600 Ft. Salt Water Depths," including reports on Phases I (Nov. 1969), II (April 1970), and III (June 1971), Emerson & Cuming, Inc., Dielectric Materials Division, Canton, MA, 26 pp. (June 1971)	
✓	80	Norris et al., "A Generalized Differential Effective Medium Theory," *J. Mech. Phys. Solids* 33(6):525-543 (1985)	
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Examiner Signature	D. Tung	Date Considered	8/16/05

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